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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,843	04/15/2004	Robert J. Kansy	RFMI01-00227	6859

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EXAMINER	
LE, NHAN T	
ART UNIT	**PAPER NUMBER**
2685	

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/824,843	KANSY, ROBERT J.	
	Examiner	Art Unit	
	Nhan T Le	2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bronner (US 6,026,288) in view of Callaway et al (US 5,734,974).

As to claims 1, 7, 15, Bronner teaches a circuit, comprising: one or more first amplifiers operable to amplify an incoming signal to produce an amplified incoming signal (see fig. 2, number 210, col. 5, lines 15-28), the incoming signal associated with a desired signal (see fig. 2, number 260, col. 5, lines 56-67, col. 6, lines 1-2); and a controller operable, in response to a first threshold of the amplified signal (see fig. 2, number 280, col. 5, lines 15-29) and the second threshold of the desired signal (see fig. 2, number 275, col. 6, lines 3-16). Bronner fails to teach controller operable, in response to the amplified signal exceeding the first threshold and the desired signal not exceeding the second threshold and increase a current supplied to the one or more first amplifiers. Callaway teaches controller operable, in response to the amplified signal exceeding the first threshold and the desired signal not exceeding the second threshold and increase a current supplied to the one or more first amplifiers (see col. 2, lines 23-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to provide the teaching of Callaway into the system of Bronner in order to control the signal through the amplifier.

As to claims 2, 8, Bronner further teaches a first comparator (see fig. 2, number 280, col. 5, lines 15-28) operable to compare the amplified incoming signal to the first threshold; and a second comparator (see fig. 2, number 275, lines 3-16) operable to compare the desired signal to the second threshold.

As to claims 3, 16, Bronner further a filter (see fig. 2, number 205, col. 5, lines 15-28) operable to filter the incoming signal to produce a filtered incoming signal; and wherein the one or more first amplifiers (see fig. 2, numbers 235, 250, col. 5, lines 43-55) are operable to amplify the filtered incoming signal to produce the amplified incoming signal.

As to claims 4, 9, 17, Bronner further teaches a mixer (see fig. 2, number 220, col. 5, lines 29-42) operable to perform a mixing operation involving the amplified incoming signal to produce a mixed incoming signal; a filter (see fig. 2, number 230, col. 5, lines 43-50) operable to filter the mixed incoming signal to produce a filtered mixed incoming signal; and a third amplifier (see fig. 2, number 260, col.5, lines 56-67, col. 6, lines 1-2) operable to amplify the filtered mixed incoming signal to produce the desired signal.

As to claim 5, Bronner further teaches wherein the first and second filters comprise bandpass filters (see fig. 2, numbers 205, 230, col. 5, lines 15-48).

As to claims 6, 10, 18, the combination of Bronner and Callaway further comprising a switch coupling a power supply to at least one of the one or more first

amplifier and the controller operable to open and close the switch (see Callaway col. 2, lines 2-54).

As to claims 11-14, the claims are rejected as to claim 1.

As to claims 19-20, the claims are rejected as to claim 7.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Takagi (US 6,226,504) teaches receiving apparatus.

Halim et al (US 5,036,527) teaches interactive automatic gain control for an analog front end of a modem.

Kamgar et al (US 6,324,387) teaches LNA control circuit for receive closed loop automatic gain control.

Suganuma et al (US 5,507,023) teaches receive with AGC circuit capable of expanding a dynamic range.

Heininen et al (US 6,636,127) teaches automatic gain control methods and apparatus suitable for use in OFDM receivers.

Bradley et al (US 6,804,501) teaches receiver having gain control and narrowband interference detection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T Le whose telephone number is 703-305-4538. The examiner can normally be reached on 08:00-05:00 (Mon-Fri).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 703-305-4385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

N. Le

Nhan Le

Nguyen VO

12-13-2004

NGUYEN T. VO
PRIMARY EXAMINER